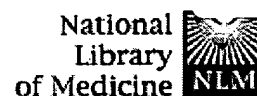


EXHIBIT E



Entrez

PubMed

Nucleotide

Protein

Genome

Structure

PMC

Journals

B

Search PubMed

for

Go

Clear

Limits

Preview/Index

History

Clipboard

Details

About Entrez

Display

Abstract

Show:

20

Sort

Send to

Text

Text Version

Entrez PubMed

Overview

Help | FAQ

Tutorial

New/Noteworthy

E-Utilities

PubMed Services

Journals Database

MeSH Database

Single Citation Matcher

Batch Citation Matcher

Clinical Queries

LinkOut

Cubby

Related Resources

Order Documents

NLM Gateway

TOXNET

Consumer Health

Clinical Alerts

ClinicalTrials.gov

PubMed Central

Privacy Policy

- ☐ 1: Biochem Biophys Res Commun. 1999 Feb 5; 255(1): 164-8. Related Articles, L

**ELSEVIER**  
**FULL-TEXT ARTICLE**

### The key amino acid residue of prostaglandin EP3 receptor for governing G protein association and activation steps.

Satoh S, Chang C, Katoh H, Hasegawa H, Nakamura K, Aoki J, Fujita Ichikawa A, Negishi M.

Department of Molecular Neurobiology, Department of Physiological Chemistry, Faculty of Pharmaceutical Sciences, Kyoto University, Sakyo-ku Kyoto, 606-8501, Japan.

To assess the role of the conserved DPWXY motif of the seventh transmembrane domain in prostanoid receptor-mediated G protein activation we have mutated the negatively charged Asp-318 in this motif of the Gi-coupled mouse prostaglandin EP3 receptor to uncharged but polar Asn (EP3 D318N) and to the non-polar Leu (EP3-D318L). The EP3 agonist and antagonist showed similar binding affinities for the wild-type and two mutant receptors. The wild-type and EP3-D318N receptors but not EP3-D318L receptor associated with Gi in guanine nucleotide- and pertussis toxin-sensitive manners. On the other hand, the wild-type receptor but not two mutant receptors had the ability to stimulate GTPase activity and to inhibit the adenylate cyclase. These findings demonstrate that the chemical nature of the amino acid residue at position 318 of the seventh transmembrane domain of EP3 receptor dissociates the step of Gi association from that of subsequent activation in the process of the EP3 receptor-Gi coupling. Copyright 1999 Academic Press.

PMID: 10082673 [PubMed - indexed for MEDLINE]

Display

Abstract

Show:

20

Sort

Send to

Text

Write to the Help Desk

NCBI | NLM | NIH

Department of Health &amp; Human Services

Freedom of Information Act | Disclaimer